



**GOVERNING BOARD AGENDA ITEM
AMPHITHEATER UNIFIED SCHOOL DISTRICT NO. 10**

DATE OF MEETING: June 27, 2023

TITLE: Presentation on K-12 Core Content and Program Curriculum Work

BACKGROUND:

The Office of Learning and Instruction offers a continuation of the study item presented on June 13, 2023, Presentation on K-12 Core Content and Program Curriculum Work. During the first presentation, we focused on the overarching goal to fully implement a guaranteed and viable curriculum through strengthening our core, Tier 1 instruction and to provide personalized learning opportunities for all students. The upcoming study item on June 27, 2023, will provide a continued explanation of the collaborative work between the K-12 Coordinators and Amphitheater teachers that has moved the Office of Learning and Instruction closer to our goal and has supported our District's vision of the Portrait of a Graduate.

The upcoming presentation will focus on the curriculum work completed for all grade levels in math and science contents. Polly Kimminau, Math Coordinator (K-12), and Pam Vandivort, Science/STEM Coordinator (K-12) will explain the creation of standards-based resources that support consistent implementation of adopted curricula throughout Amphitheater schools, including:

- K-12 curricular resources that align the written, taught and assessed curriculum in math and science.
- Tools that provide measurable criteria for determining mastery of grade-level standards.
- Two-way communication channels that were used to support collaboration across Amphitheater schools and the Office of Learning and Instruction.
- Professional learning to support teachers and schools.

Elementary Math:

Polly Kimminau, Math Coordinator, worked with school leaders and teachers from all elementary schools to support standards-based instruction through the creation of the elementary scope and sequences and the elementary report card revisions.

- Ms. Kimminau developed a set of resources that informs our understanding of the alignment between the AZ Mathematics Standards and the adopted curriculum, *Everyday Math 4.0*. These resources also provide consistent criteria for determining student's mastery of essential learning as they progress through the school year. Throughout this process, Ms. Kimminau used a two-way communication model to retrieve feedback from instructional leaders and staff across all school sites. She facilitated the study of the initial drafts with principals and hosted virtual "office hours" for teachers and leaders to learn about the resources. This allowed educators to ask for informed clarifications about how to use the documents and allowed Ms. Kimminau the opportunity to respond to feedback and make refinements to the resources (all accessible through exhibit A).
 - Mastery Expectations Organized by Quarter/Unit: Mastery Expectations are aligned to Everyday Math and indicate at what point in the scope of the curriculum, students should have mastered the State Standard. The reason this section is important is because it provides a guide for teachers to monitor the progress of their students to determine their yearlong progress toward content mastery for their grade.
 - Benchmark Expectations Organized by Quarter/Unit: Everyday Math has broken down each standard into Benchmark Expectations organized by quarter. These expectations allow the teacher a checkpoint to assess students' understanding of skills as they progress toward mastery. These Benchmark Expectations help to identify critical skills for each quarter on the Report Card.

- Spiraling Focus Organized by Quarter: This spreadsheet provides teachers with another way to view what the students should know and be able to do by the end of each unit. It is a visual representation of the spiraling nature of Everyday Math, which allows students multiple opportunities to build on previous learning throughout the year.
- Everyday Math Assessment and the AZ Mathematics Standards: Each lesson in Everyday Math has an “Assessment Check-In” (except kindergarten). This spreadsheet identifies the standard or standards measured during each Assessment Check-in.
- A group of elementary teachers representing all grade levels and all elementary schools was convened and tasked with revising the K-5 report card to align the written and taught curriculum, the assessed knowledge and skills, and the information we provide to parents and guardians about student achievement. Ms. Kimminau used several strategies for communicating with and to teachers about the report card revisions. These strategies included flexible opportunities for educators to listen, engage with others to deepen understanding, and to provide feedback to inform refinements to the resources. Information was provided through an informational video presentation as initial training for teachers, and interactive “office hours” were held for teachers and leaders to discuss implementation and intended use, and in-person visits to school sites were offered to meet with teachers during planning periods.
 - Elementary Report card (exhibit B): The report card was designed to directly connect the Arizona State Standards and our Tier 1, core curriculum, Everyday Math. The Standards selected for inclusion on the Report Card were the Major Cluster (or priority) Standards of the AZ Mathematics Standards, as well as a few Supporting Cluster Standards, specifically selected to connect to critical skills for success in the next grade level. The green color on the report card refers to the Mastery Expectation as presented in Everyday Math. While Arizona State Standards require mastery by the end of the year, this resource helps teachers become aware of when mastery is expected within the scope of the curriculum.
 - Elementary Report Card Rubric (exhibit B): Based on the Everyday Math Benchmark Expectations, organized by quarter, the report card rubric identifies each benchmark skill expected for each quarter as the students work toward mastery of the State Standards.
- In addition to supporting implementation of our adopted core math curriculum, Ms. Kimminau also supported the use of the supplemental digital curriculum, Dreambox Learning.

Secondary Math:

During the last study on June 13, 2023, our team presented a 5-year plan that supports standards-based teaching and grading, consistent implementation of the adopted curriculum, common formative assessment that drives evidence-based instruction, and personalized competency-based learning. Department Heads from the 4 major contents (ELA, Math, Science, Social Studies) at every middle and high school met throughout the year to work toward the goals for year 1. They will continue to meet and communicate back to their colleagues about the progress toward the annual goals of this team. Ms. Kimminau facilitated the work of Department Heads for Mathematics by:

- Establishing a strong understanding of the grade 6-12 AZ Mathematics Standards, including the standards for mathematical practices (factors that support rigor, relevance and promote college and career readiness).
- Identification of priority standards (those that require the most time and attention, are high leverage and allow crossover to other contents and interdisciplinary connections and include concepts that endure over time, (exhibit C).
- Developed scope and sequence documents that align with AZ Mathematics Standards, include the essential learning that all students must master by the end of each course, and provide guidance on the key ideas and vocabulary that students must learn to demonstrate proficiency in each subject (exhibit D).
- Developed proficiency scales that include clear descriptors of what the progression of learning looks like. These proficiency scales will assist teachers as they transition to standards-referenced grading practices (exhibit E).

Keeping in mind our focus and commitment to personalized-competency based learning for students, Ms. Kimminau developed guidelines to assist teachers in making equitable, evidence-based recommendations for accelerating student learning.

- Middle School Acceleration flow-chart (exhibit F)
- Middle School math placement resources

Ms. Kimminau coordinated and facilitated professional learning opportunities for elementary and secondary teachers across the District and as requested by specific schools.

- Coordinated District Wednesdays' Professional Development Trainings for *Everyday Math 4.0*, **DreamBox Learning*, enVisionmath 2.0, and **ALEKS* (*digital learning curriculum)
- Provided professional learning and support as requested by school sites on connections between DreamBox student's achievement reports and NWEA MAP data.
- Provided individualized support as requested by CISS team members and individual teachers on K-12 curriculum and instruction.

Elementary Science:

AZ Science standards changed in 2018 to include three dimensions: Science & Engineering Practices, Cross-Cutting Concepts and Core Ideas. The standards are structured to support phenomena and inquiry-based learning, which teaches students to think critically rather than memorize facts. The format of the summative state assessment, AZSci reflects this as it contains a series of graphics and informational text from which students must extract information to create scientific explanations of phenomena. The Picture-Perfect (PP) and Engineering is Elementary (EiE) curricula align well with all 3 dimensions of the elementary science standards. They are both inquiry and phenomena based and integrated with ELA, geography, social studies and math support. As students work through the challenges of the PP and EiE curricula, they are practicing the AzSCI testing format.

The adopted science curriculum has been in use for 5 years. A renewed focus on the guaranteed and viable curriculum (equitable access to essential learning and skills, as well as articulated essential learning that can be taught in allocated time) has strengthened our understanding of how well it aligns to our academic standards. Our unified goal is to transform learning experiences so that students have opportunities to inquire, explore, discover, think critically and draw informed conclusions.

To sustain these more rigorous instructional shifts, Ms. Vandivort provided differentiated support to teachers and schools throughout the district. The following professional learning experiences were offered:

- Whole-staff training (1 hour for Picture Perfect; 3+ hours for Engineering is Elementary) - refresher trainings as needed.
- Grade level support to meet instructional expectations of at least 5 Picture Perfect, and Engineering is Elementary units per year to cover all standards.
- Assistance for schools to organize and plan learning for the Maker Space. This included designing the educational space, organizing materials, and practice leading hands-on lessons using Maker Spaces. The intended outcome is to support school leaders to ensure Maker Spaces are fully functional and in use in all schools.
- Professional learning designed to integrate English Language Arts and Social Studies standards with the Amphitheater Science Units.

Ms. Vandivort also provided support to schools that had specific goals for building the capacity of their staff in teaching Science and STEM. Ms. Vandivort worked with the principals of these schools to develop support plans that yielded increased student achievement outcomes. These plans included the following action items:

- All teachers received updated training and support to implement the Tier 1, core curriculum with fidelity.
- Maker Spaces and outdoor learning environments would be used consistently.
- All teachers and students attend at least 1 STEM challenge tutorial.
- All teachers conduct one class science project to be entered into SARSEF.
- All teachers increase their use of graphs, tables and other graphic organizers into daily practices.
- All teachers post CERs, and other EOLs for whole-school interaction.

Secondary Science:

Amphitheater’s adopted Middle School core curriculum was developed by a team of teachers from our schools in collaboration with the ADE through their Deeper Dive grant program, initiated in 2018. Their goal, which was achieved, was to construct a total of (9) 3D, phenomena-driven, hands-on curriculum guides; to include Life, Physical and Earth sciences for 6th, 7th & 8th grades. Ms. Vandivort has worked collaboratively with middle school teachers to sustain the implementation of this curriculum.

The efforts to strengthen Tier 1, core instruction across all major content areas continued with science. The secondary science department heads met throughout the year to work toward the year 1 goals of developing a well-articulated scope and sequence and to develop proficiency scales for all priority standards. Ms. Vandivort facilitated the work of the middle and high school department heads by:

- Establishing a strong understanding of the grade 6-12 AZ Science Standards, including the science and engineering practices (factors that help students make sense of the natural world and understand how science and engineering are practiced and experienced).
- Identification of priority standards (those that require the most time and attention, are high leverage and allow crossover to other contents and interdisciplinary connections and include concepts that endure over time, (exhibit G).
- Developed scope and sequence documents that align with AZ Science Standards, include the essential learning that all students must master by the end of each course, and provide guidance on the key ideas and vocabulary that students must learn to demonstrate proficiency in each subject (exhibit H).
- Developed proficiency scales that include clear descriptors of what the progression of learning looks like. These proficiency scales will assist teachers as they transition to standards-referenced grading practices (exhibit I).

Future Goals for Elementary and Secondary Science/STEM:

Ongoing goals for Science and STEM are a continuation of our explicit efforts to align instruction, curriculum and assessment. Elementary support will focus on increased use of the Maker Spaces, increasing opportunities to incorporate graphs, tables, data imagery into lessons, and integration of other major content standards into the elementary science units. Secondary schools will focus their continued curriculum work to support the resources described in this narrative item. Ms. Vandivort will facilitate the collaborative work to develop common formative assessments that are aligned to our standards and curriculum.

RECOMMENDATION:

This is presented to the Governing Board as an informational item.

INITIATED BY:

Elizabeth A. Jacome
Elizabeth Jacome
Director of Curriculum and Assessment

Date: June 20, 2023

Todd A. Jaeger
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